

ABSTRACT

Various embodiments of apparatus and various embodiments of methods to communicate between a first circuit board and a second circuit board using one or more open air communication channels are provided. A plurality of light transmitters and light receivers are attached to a first circuit board; and a corresponding plurality of light receivers and light transmitters are attached to a second circuit board. The light receivers on both circuit boards are disposed to receive data transmitted by the corresponding light transmitters on each circuit board. In one embodiment, where the light transmitters are laser diodes, different colors may be used to increase adjacent signal rejection. In another embodiment, the light transmitters may be laser, radio, microwave, digital, ultraviolet, or infrared light transmitters. The light transmitters may transmit data across open spaces between circuit boards, including through apertures in boards placed between the light transmitter and light receiver.